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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,825	02/20/2002	Alan R. Larsen	14127	3082
7590	03/09/2004		EXAMINER	
Sally J. Brown Autoliv ASP, Inc. 3350 Airport Road Ogden, UT 84405			TO, TOAN C	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/081,825	Applicant(s) LARSEN ET AL.	
	Examiner Toan C To	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-43 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-20, 22-39 and 41-43 is/are rejected.
- 7) ☒ Claim(s) 3, 21 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                              |                                                                             |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:                                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4, 6-8, 12-20, 22-33, 38-39, and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Gest (U.S. 5,562,304).

With respect to claims 1, 12-15, 17-18, 24-26, 29-30, 43, Gest discloses an airbag inflator with the following: a housing (90) having a first and second ends, wherein the housing (90) comprising corrugated material; a first end cap (28) attached to the first end of the housing, a second end cap (80) attached to the second end of the housing; combustible material (50) positioned within the housing, the material capable of generating inflation fluid upon ignition; an initiator (36) in communication with the combustible material for initiating a combustible reaction within the housing; wherein the combustible material (50) is substantially enclosed by a membrane (62), and the membrane defining a combustion chamber; wherein the membrane (62) comprising an environmental seal/metalized film (see column 4, lines 10-67, and column 5, lines 1-40); and the membrane (62) is configured to expand and burst at a predetermined breakout pressure created by the inflation fluid; a wire covering (92) positioned about the housing, the covering having a first end attached to the first end cap (28) and second end attached to the second end cap (80); wherein, the covering comprising braided

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steel wire (wire mesh screen, see column 7, line 20); wherein the housing (90) is flexible (the claim broadly recites the housing is flexible but does not recite the degree of flexibility of the housing, therefore, the housing made of corrugated material is considered to flex at some degrees upon application of force).

With respect to claims 4, and 32, Gest discloses an airbag inflator, wherein the housing (90), the first end cap (28) and the second end cap (80) comprising a pressure vessel.

With respect to claims 5, 33, Gest discloses an airbag inflator having housing, wherein the housing (90) comprising steel (see column 9, line 28).

With respect to claims 6-8, 27-28, Gest discloses an airbag inflator, wherein, the corrugated housing (90) defines distal peak portion (112) and proximal valley portion (109), the distal peak portion being perforated (130); wherein the corrugated housing (90) includes perforation (130) at a point between the distal portion and proximal portions, thereby allowing inflation fluid to escape the housing at a predetermined rate;

With respect to claims 16, and 31, Gest discloses an airbag inflator, wherein the housing (90) is detached from the membrane (62).

With respect to claims 19-20, and 38-39, Gest discloses an airbag inflator, wherein the first and second end caps (28, 80) are each secured to the housing by a weld ring (34, 84), and by a crimp sleeve (26, 16).

With respect to claims 22-23, and 41-42, Gest discloses an airbag inflator wherein the initiator (36) is squib, wherein the squib is integral with one of the first end cap (28).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gest in view of Walker et al (U.S. 5,845,933).

With respect to claim 9, Gest does not directly disclose the inflator, wherein the first and second end caps are steel. It would have been obvious design choice for one having ordinary skill in the art at the time the invention was made to make the first and second end caps as disclosed by Gest by steel material in order to provide safety protection for occupant, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

5. Claims 10-11, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gest in view of Siddiqui et al (U.S. 6,095,561).

Gest discloses every element of the invention as discussed above except that the combustible material comprising combustible solid fuel tablets coated with an ignition enhancer.

Siddiqui et al teaches the invention wherein the combustible solid fuel tablets (42, 44) coated with an ignition enhancer.

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It would have been obvious design choice for one having ordinary skill in the art at the time the invention was made to modify the inflator of Gest by as taught by Siddiqui et al to include: combustible material comprising combustible solid fuel tablets coated with an ignition enhancer in order to protect safety of occupant.

With respect to claims 11, 36, Gest discloses the claimed invention except for the combustible material comprises stored inert gas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflator of Gest by using the inert gas for the combustible material in order to protect occupant, since it has been held to be within the general skill of a worker in the art to select a know material on the basis of its suitability for the intended use as a matter of obvious design choice.

6. Claim 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gest.

Gest discloses every element of the invention except for the membrane (60) comprising mylar.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Gest by using mylar material for membrane in order to sufficiently provide inflation gas for protecting occupant. Since it has been held to be within the general skill of worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin 125 USPQ 416

***Allowable Subject Matter***

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7. In view of reconsideration, the indicated allowability of claims 6-8, 17-18, 24-39, 41-43 in previous Office Action is now withdrawn.

8. Claims 3, 21, and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

9. Applicant's arguments filed December 23, 2003 have been fully considered but they are not persuasive.

Applicant is noted that the claims are again rejected base upon the previous prior art as to Gest, however, there are several differences in interpretation between the above rejections and the previous rejections, for example, the above rejections indicate that filter wall 90 (not housing 12) corresponds to the housing of the present invention, and grain 60 (not layer 90) corresponds to membrane of the present invention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan C To whose telephone number is (703) 306-5951. The examiner can normally be reached on Mon-Fri (8:00-5:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

To, T

March 5, 2004

 3/8/04  
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